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Plastic Mounting Technique for Herbaria

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A PLASTIC MOUNTING TECHNIQUE FOR HERBARIA

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The perfect technique of mounting herbarium specimens has never yet been attained and will probably never be achieved. However, there are several methods involving plastic adhesive material which seem to offer promise when compared with the time-honored glue method. The particular technique under consideration in this paper has been used successfully by the writer and two botany majors working under his direction.

The plastic adhesive used is sold under the trade name "Gelva."[1] This material is marketed as a solid and is dissolved in alcohol. Methyl, ethyl, or iso-propyl may be used as a solvent. Of the three mentioned, the writer has found iso-propyl to be the most satisfactory for several reasons: iso-propyl lacks the toxicity of methyl, does not involve the legal restrictions connected with ethyl, and the plastic appears to be more readily soluble in it.

In preparing the plastic for use, one takes a definite quantity of alcohol (one quart, etc.) and adds the solid plastic to the alcohol until a heavy syrup is formed. It may take some time for the material to go into solution so that one should have several batches in preparation to assure a continuous supply for immediate use at any one time. The solution may be heated to hasten the rate at which the plastic goes into solution, but the writer prefers to prepare the material at room temperature since this has proven most satisfactory for him.

After the plastic is ready for use, specimens are mounted by the method subsequently described. The

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[1] Gelva Grade V-25. Sold by Shawinnigan Products Corp., 350 5th Ave., New York 1, N. Y.

plastic solution is spread onto a large glass plate by means of a paint brush. Care should be taken to see that the material is liberally applied. The specimen to be mounted is then placed on the glass plate in the same position it will occupy when mounted on the herbarium sheet, carefully pressed down so that the adhesive thoroughly contacts the underside, allowed to remain on the plate for approximately one minute, and then removed and applied to the herbarium sheet. A piece of waxed paper, household type, is placed over the specimen, several layers of newspaper placed over that, and subsequent specimens in like manner. After a pile of specimens has been prepared, a heavy weight is applied to the top of the stack and allowed to remain for twenty-four hours. It must be emphasized that a heavy weight is necessary to insure thorough bonding of the specimen to the herbarium sheet. After pressing for twenty-four hours, the specimen is removed and is ready for routine processing. The glass plate may be cleaned by running cold water over it. This causes the plastic to congeal and assume a milky white color. It may then be stripped off the glass plate and returned to the stock solution. The paint brush used to apply the plastic to the plate is kept pliable by dipping in alcohol.

In addition to the routine use of the above mounting method, the writer sprays specimens used for teaching purposes with Geon Latex 552.2/ This substance is a vinyl resin which covers the specimen with a clear film that is quite water and insect proof.

As stated in the beginning, no mounting method is completely satisfactory or fool-proof. Neither is

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2/ The writer wishes to thank the manufacturers of this material, B. F. Goodrich Chemical Co., for supplying him with an experimental quantity of Geon Latex 552.

this one, as it often takes considerable practice to achieve good results. It does, however, have certain qualities which have encouraged the writer to use it in preference to others.

Editor's note: Attention might be called to the fact that the method of using Polyvinyl Acetate (marketed under the trade name Gelva) was described by V.H.H. Williamson in the Canadian Field-Naturalist, Vol. 65, July-August, 1950. Since this publication is probably not available to the readers of the Proceedings, the Gelva method is presented here for the benefit of those who would like to try it.